DESCRIPTION OF NEW SPECIES OF *MILODERES CASEY*, WITH COMMENTS ON OTHER SPECIES OF THE GENUS (COLEOPTERA: CURCULIONIDAE)

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Abstract.— *Miloderes allredi*, from Utah, and *M. tingi*, from California, are described as new to science.

Miloderes allredi, n. sp.

Figs. 1-5

Derm black, clothed with bluish-green, iridescent, densely placed scales; side of prothorax and elytra with long brownish setae, disc of prothorax and elytra with sparse shorter setae. *Rostrum* continuous, with no transverse impression; apex one-half width base of head. Origin of scrobes near apex of rostrum, well developed and extending to lower base of eye. Antenna brown, with setae and scales; scape reaching to middle of eye; segments 1 and 2 of funicle elongate, as as long as segments 3-6 combined. Segment 7 asymmetrical, cuplike widest on outer margin, clavate at apex. Mentum large, flat, wider than long, filling entire gular cavity. Eyes small, vertical; row of scales between eye and vibrissae of prothorax. *Prothorax* widest at anterior third, sides arcuate, strongly convergent toward base; base well separated from elytra; postocular lobes small, with developed vibrissae; sides and disc punctate, scales compact, setae short and sparse on disc; apex slightly constricted. *Scutellum* obscure. *Elytra* widest at basal fourth; sides feebly arcuate, rounded behind, posterior declivity perpendicular; disc punctate, with sparse short brown setae, a mixture of compact blue, green, and iridescent scales. *Abdomen*, ventrites and legs clothed with scales and setae similar to those on dorsal areas of body; ventrite 1 at midline as long as 2 and 3 combined. Metathoracic tibia with corbel open, margin with amber-colored row of short spines. Prothoracic tibia corbel open and with an outward projection of the distal portion of tibia. Male spermatheca and female genitalia distinctive; related to *setosus* Ting, 1940.

Length.— 5.0-5.8 mm; breadth: 2.5-3.0 mm.

Type locality.— Cotton Bench, Glen Canyon City, Kane County, Utah.

Type specimens.— Male holotype and female allotype in the entomological type collection at Brigham Young University; one paratype in the entomological collection, U.S. Natural Museum.

Specimens of this species were collected by Dr. Dorald M. Allred and assistants in May and June 1973, while collecting plant and animal species of the Lake Powell area in connection with the En-

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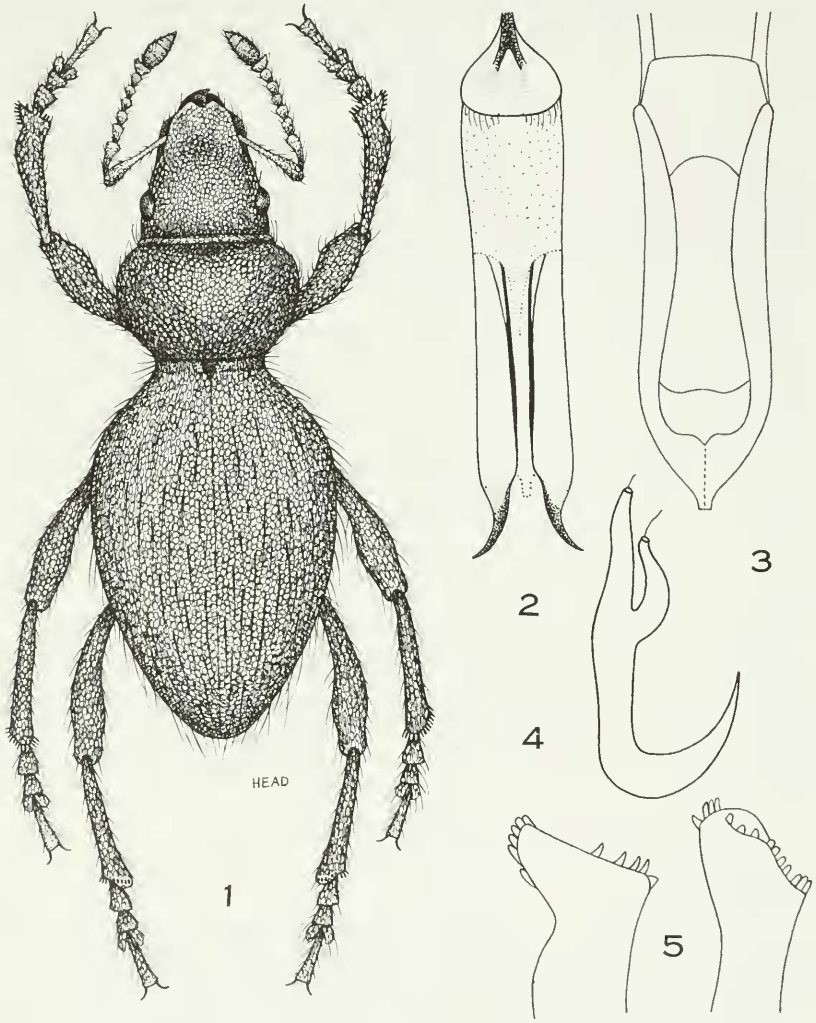
vironmental Monitoring Project in relationship to Navajo Power Plant Project. Specimens dealt with above were collected on the sand dunes, in an association of *Ephedra viridis* Coville and *Yucca baileyi* Woot. Standl.

I am pleased to name this striking species in honor of Dr. Dorald M. Allred, Professor of Zoology at Brigham Young University. Dr. Allred is a capable field worker who has devised many means of collecting arthropods and is a leader in environmental studies.



Figs. 1-5. *Miloderes allredi*: 1, dorsal view of adult female; 2-3, ♀ and ♂ genitalia; 4, spermatheca; 5, front and hind tibia.

In making this study, the genitalia of several of the species of *Miloderes* have been compared. Drawings of tibia, male, female genitalia, and spermatheca of five species are included in this study.

Miloderes tingi, n. sp.
Fig. 6-9

Derm dark chestnut brown to black, with small, irregular-shaped, rather compact, ash-grey scales that clothe legs, head, prothorax, and dorsal and ventral parts of body, each scale with central puncture; long grey setae on sides of prothorax, sides and posterior dorsal sides of elytra. *Rostrum* continuous with head, with slight transverse impression, apex one-half width base of head. Scrobes shallow, extending to well below base of eye. *Antennae* reddish brown, scape slender, first segment of funicle enlarged, as long as segments 2 and 3 combined, club large and setiferous; prementum wider than long, with few short setae; eye ovate. *Prothorax* slightly wider than long; widest at middle, sides arcuate, weakly convergent toward base, moderately convex; sides covered with dense whitish scales and long setae; dorsally tuberculate, punctate, with few scales. *Scutellum* and postocular well developed; postocular lobes small, with well-developed vibrissae, apex slightly constricted. *Elytra* widest at anterior fourth, sides feebly arcuate, rounded behind, posterior declivity perpendicular; disc punctate, scales covering surface, with scattered long setae on posterior half of disc, scales with a center puncture. Ventrites covered with scales and setae; ventrite 1 as long as 2 and 3 combined, 2 as long as 3 and 4 combined. Metathoracic tibia open, with a row of eleven amber-colored spines. Size, shape, and number of tibial spines and tibia distinctive. Prothoracic tibia with distal portion spatulate, 10 spines (Fig. 7). Spermatheca and genitalia distinctive (Fig. 8-9).

Length.— 7 mm; breadth: 3.6 mm.

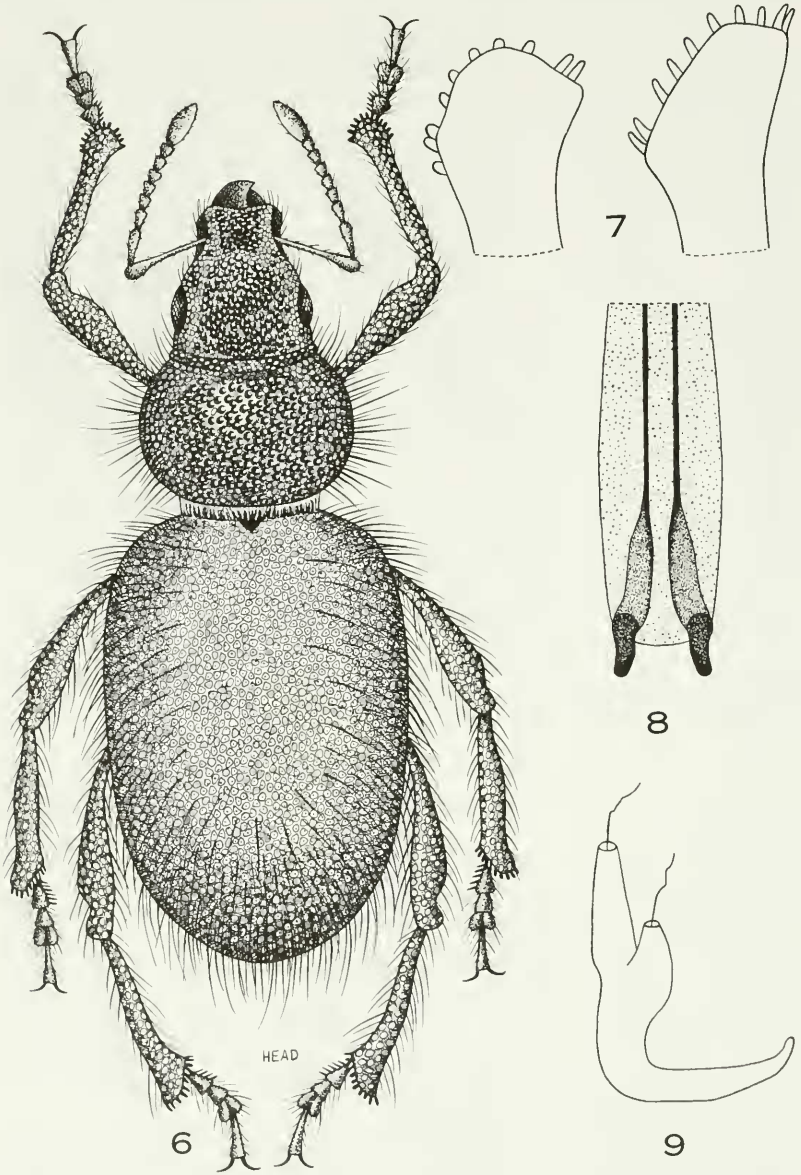
Holotype.— Female, deposited in type collection, Brigham Young University.

Type locality.— Essex, San Bernardino Co., California. 29-IV-1937, Collectors: P. T. Ting, M. Cazier.

M. tingi is uniformly a dark brownish species, clothed with small dense greyish scales; head and prothorax tuberculate, no traces of striation on elytra, and devoid of setae on the central areas of prothorax and elytra. The female genitalia and spermatheca differ from similar structures of other species of this genus. This species is closely related to *M. setosa* Csy; however, it is more robust with smaller scale punctation on prothorax, and the female genitalia and spermatheca are different (Figs. 8-9).

I am pleased to name this species in honor of Peter T. Ting who contributed much to our knowledge of this group of Brachyrhininae weevils (1940). Edwin C. Van Dyke and David G. Kissinger have done much to bring about an orderly arrangement and understanding of this interesting western-American weevil fauna.

The keys to the genera and species of this group as contained in Ting's paper (1940) will be useful, in combination with the description and illustrations of this paper, in separating the species of



Figs. 6-9. *Miloderes tingi*: 6, dorsal view adult female; 7, front and hind tibia; 8, ♀ genitalia; 9, spermatheca.

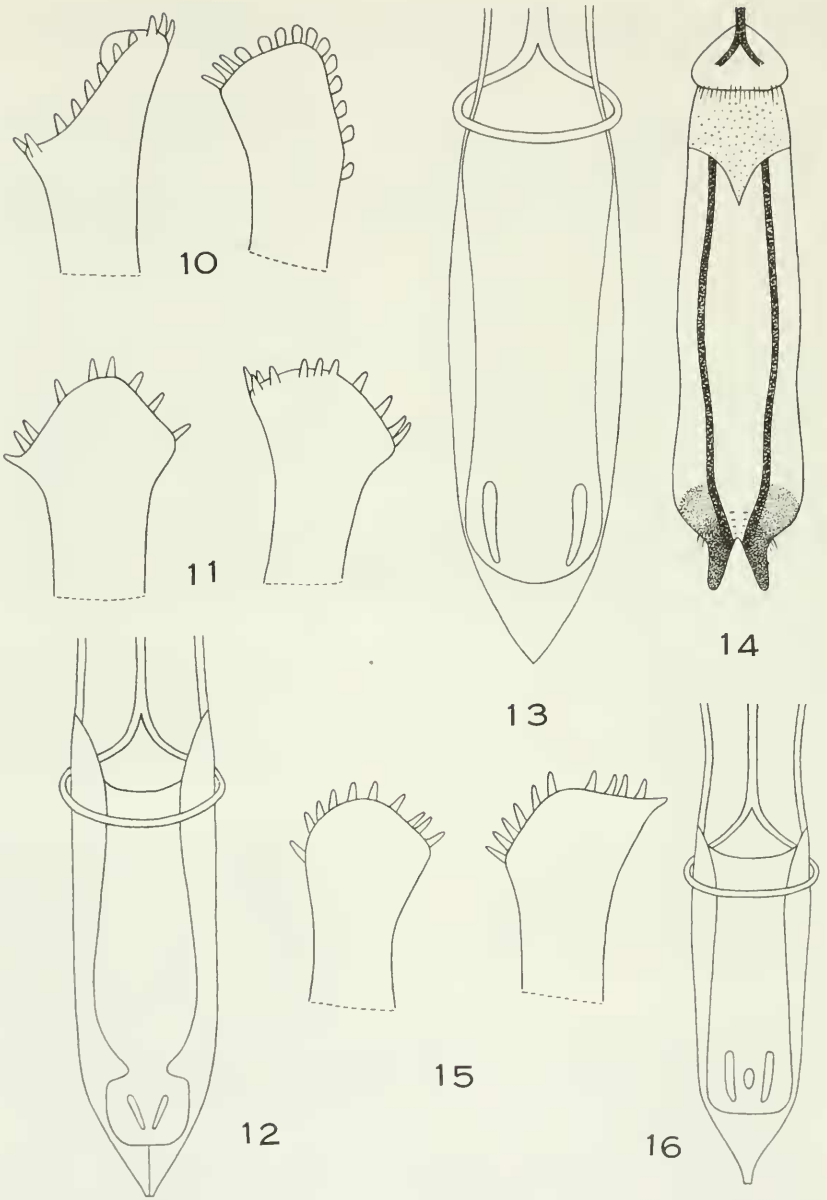


Fig. 10: *Miloderes nelsoni* Kissinger, front and hind tibia. Fig. 11: *M. setosus* Casey. Fig. 12: *M. nelsoni*, ♂ genitalia. Fig. 13: *M. mercuryensis* Tanner, ♂ genitalia. Fig. 14: *M. setosus* Csy., ♀ genitalia. Fig. 15: *mercuryensis* Tanner, front and hind tibia. Fig. 16: *M. setosus* Csy. ♂ genitalia.

Miloderes. I have had the privilege of examining specimens of all six of the species now included in *Miloderes*. Unfortunately, I did not make drawings of the tibia of *M. viridis* Pierce.

Dr. Elbert L. Sleeper has made a study of some species of *Miloderes*, but I do not have access to his writings dealing with the species of this genus. He kindly contributed specimens of *M. nelsoni* Kissinger which I have reported on.

I wish to express my thanks to Dr. Rose Ella Warner for her aid in this study and for loan of specimens of *M. viridis* and *M. setosus* from the U.S. National Museum and courtesies extended while I studied at the museum.

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